



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0478; Directorate Identifier 2012-SW-092-AD;**

**Amendment 39-17736; AD 2014-02-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Agusta S.p.A. (Type Certificate currently held by AgustaWestland S.p.A.) (Agusta) Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Agusta Model A109C, A109E, A109S, A109K2, and AW109SP helicopters. This AD requires inspecting the lock wires securing the tail rotor (T/R) duplex bearing locking nut (locking nut) to determine whether any lock wires are missing or damaged. This AD was prompted by reports of loosening T/R locking nuts. The actions of this AD are intended to prevent failure of the T/R and subsequent loss of control of the helicopter.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Agusta Westland, Customer Support & Services, Via Per Tornavento 15, 21019 Somma Lombardo (VA) Italy, ATTN: Giovanni Cecchelli; telephone 39- 0331-711133; fax 39 0331 711180; or at <http://www.agustawestland.com/technical-bulletins>. You may review the referenced

service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5110; email [robert.grant@faa.gov](mailto:robert.grant@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

On June 5, 2013, at 78 FR 33768, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to add an AD that would apply to Agusta Model A109C, A109S, and A109K2 helicopters, all serial numbers; Model A109E helicopters, serial number (S/N) 11002 through 11807 except S/N 11796; and Model AW109SP helicopters, S/N 22202 through 22278, except S/N 22239, 22264, 22266, 22272, 22273, 22275, and 22277. The NPRM proposed to require repetitively inspecting the lock wires that secure the T/R locking nut to the housing to determine whether both wires are present and not damaged. If only one wire is installed

and it is not damaged, the NPRM proposed installing a second lock wire. If one or both lock wires are installed and either one or both are damaged, the NPRM proposed removing and reassembling the housing and slider group of the T/R rotating controls. The NPRM further proposed removing and reassembling the housing and slider group of the T/R rotating controls within 100 hours time-in-service (TIS) if not accomplished as a result of the inspections. Removing and reassembling the housing and slider group of the T/R rotating controls, either within 100 hours TIS or because a lock wire is damaged, was proposed as terminating action for the repetitive inspections. The proposed requirements were intended to prevent failure of the T/R and subsequent loss of control of the helicopter.

The NPRM was prompted by AD No. 2012-0195-E, dated September 24, 2012, and corrected September 25, 2012 (AD 2012-0195-E), issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA issued AD 2012-0195-E to correct an unsafe condition for certain Agusta Model A109E, A109LUH, A109S, AW109SP, A109C, and A109K2 helicopters. EASA advised that they received reports of the T/R locking nut, part number (P/N) 109-0130-97, loosening on A109 helicopters. According to EASA, an investigation revealed that, in every occurrence, one or both of the lock wires securing the locking nut were either damaged or absent from the T/R, which could lead to failure of the T/R function and subsequent loss of control of the helicopter. AD 2012-0195-E requires repetitively inspecting the lock wires which secure the T/R locking nut for missing and damaged lock wires, and removing and reassembling the housing and slider group of the T/R rotating controls, which is terminating action for the repetitive inspections.

## **Comments**

After our NPRM (78 FR 33768, June 5, 2013) was published, we received comments from one commenter.

## **Request**

One commenter requested we include a statement that previous compliance with the applicable Agusta Bollettino Tecnico (BT) fulfills the requirements of the AD. We disagree that such a statement is necessary. Paragraph (d) of the AD states you are responsible for performing each AD action unless it has already been accomplished. This would include previous compliance with the portions of the service information that are consistent with the requirements of the AD.

The commenter also requested that we include a statement that the removal, disassembly, reassembly, and reinstallation of the T/R housing and slider group is to be accomplished in accordance with the pertinent part of the Agusta BT, as this would clarify the scope and detail of work required. We disagree. First, such a statement is not necessary, as the Agusta BT does not provide a greater level of scope and detail of work required. The BT only states that removal, disassembly, reassembly, and reinstallation is to be accomplished in accordance with the appropriate maintenance manual. Second, such a statement would not be appropriate because the Agusta BT is only one method of compliance for this AD. An operator may comply using other methods as long as all work is done in a manner acceptable to the FAA.

## **FAA's Determination**

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with

Italy, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA, reviewed the relevant information, considered the comments received, and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed, except we are including an additional reference for the actions constituting terminating action for the AD. This change will neither increase the economic burden on any operator nor increase the scope of the AD.

#### **Differences Between this AD and the EASA AD**

The EASA AD requires reassembling the housing and slider group within 100 flight hours or 7 months, while this AD requires this action within 100 hours TIS.

#### **Related Service Information**

Agusta has published BT No. 109-134 for Model A109C helicopters, BT No. 109EP-121 for Model A109E helicopters, BT No. 109S-48 for Model A109S helicopters, BT No. 109K-54 for Model A109K2 helicopters, and BT No. 109SP-051 for Model AW109SP helicopters. All of the BTs are dated September 21, 2012. The BTs specify procedures for inspecting the lock wires of the T/R locking nut and for removing and reassembling the housing and slider group of the T/R rotating controls.

#### **Costs of Compliance**

We estimate that this AD affects 146 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Based on an average labor rate of \$85 per hour, inspecting the lock wire will require about 0.25 work-hour, for a cost per helicopter of \$22 and a total cost to U.S. operators of \$3,212 per

inspection cycle. If necessary, installing a lock wire will require about 0.25 work-hour and the required parts cost are negligible, for a cost per helicopter of \$22 and a total cost to U.S. operators of \$3,212. Removing and reassembling the housing and slider group of the T/R rotating controls will require about 8 work-hours, for a cost per helicopter of \$680 and a total cost to U.S. operators of \$99,280.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866;
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2014-02-08 **Agusta S.p.A. Helicopters (Type Certificate currently held by AgustaWestland S.p.A.) (Agusta):** Amendment 39-17736; Docket No. FAA-2013-0478; Directorate Identifier 2012-SW-092-AD.

**(a) Applicability**

This AD applies to Agusta Model A109C, A109S, and A109K2 helicopters, all serial numbers; Model A109E helicopters, serial number (S/N) 11002 through 11807 except S/N 11796; and Model AW109SP helicopters, S/N 22202 through 22278, except S/N 22239, 22264, 22266, 22272, 22273, 22275, and 22277, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a missing or broken lock wire securing the tail rotor (T/R) duplex bearing locking nut (locking nut). This condition could result in loosening of the locking nut, failure of the T/R, and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) Within 5 hours time-in-service (TIS), inspect each lock wire securing the T/R locking nut to the housing.

(i) If only one lock wire is installed and it is not damaged, before further flight, install a second lock wire.



(ii) If one or both lock wires are installed, and either one or both are damaged, before further flight, remove and reassemble the housing and slider group of the T/R rotating controls.

(2) Within 25 hours TIS from the inspection required by paragraph (e)(1) of this AD, and thereafter at intervals not exceeding 25 hours TIS, inspect the lock wires which secure the T/R locking nut to the housing. If either lock wire is missing or damaged, before further flight, remove and reassemble the housing and slider group of the T/R rotating controls.

(3) Within 100 hours TIS, remove and reassemble the housing and slider group of the T/R rotating controls.

(4) Removing and reassembling the housing and slider group of the T/R rotating controls as required by paragraph (e)(1)(ii), (e)(2), or (e)(3) is terminating action for this AD.

**(f) Special flight permit**

Special flight permits are prohibited.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5110; email [robert.grant@faa.gov](mailto:robert.grant@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or

certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information**

(1) Agusta Bollettino Tecnico (BT) No. 109-134 for Model A109C helicopters, BT No. 109EP-121 for Model A109E helicopters, BT No. 109S-48 for Model A109S helicopters, BT No. 109K-54 for Model A109K2 helicopters, and BT No. 109SP-051 for Model AW109SP helicopters, all dated September 21, 2012, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Agusta Westland, Customer Support & Services, Via Per Tornavento 15, 21019 Somma Lombardo (VA) Italy, ATTN: Giovanni Cecchelli; telephone 39- 0331-711133; fax 39 0331 711180; or at <http://www.agustawestland.com/technical-bullettins>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2012-0195-E, dated September 24, 2012, and corrected September 25, 2012. You may view the EASA AD on the internet in the Docket No. FAA-2013-0478 at <http://www.regulations.gov>.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6400: Tail Rotor System.

Issued in Fort Worth, Texas, on January 16, 2014.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

[FR Doc. 2014-01953 Filed 01/30/2014 at 8:45 am; Publication Date: 01/31/2014]